

***Abstract***

An improved segmented analog to digital converter is provided, configured with a novel method of compensating current flow in secondary or successive segmented elements. In operation, dual current devices initially load, then subsequently unload a cascade of resistor networks connected to the secondary or successive voltage segmenting elements, preventing the perturbation of precise operation of the primary or preceding elements. In contrast to conventional approaches, the improved converter obviates the need for a buffer or amplifier to isolate the secondary and successive voltage segmenting elements from the primary or preceding elements.